PMT Calibration @ FNAL (Status Report)

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- Outline

  - PMT inventory and current calibration status.

  - Gain measurements B=1.4 T.

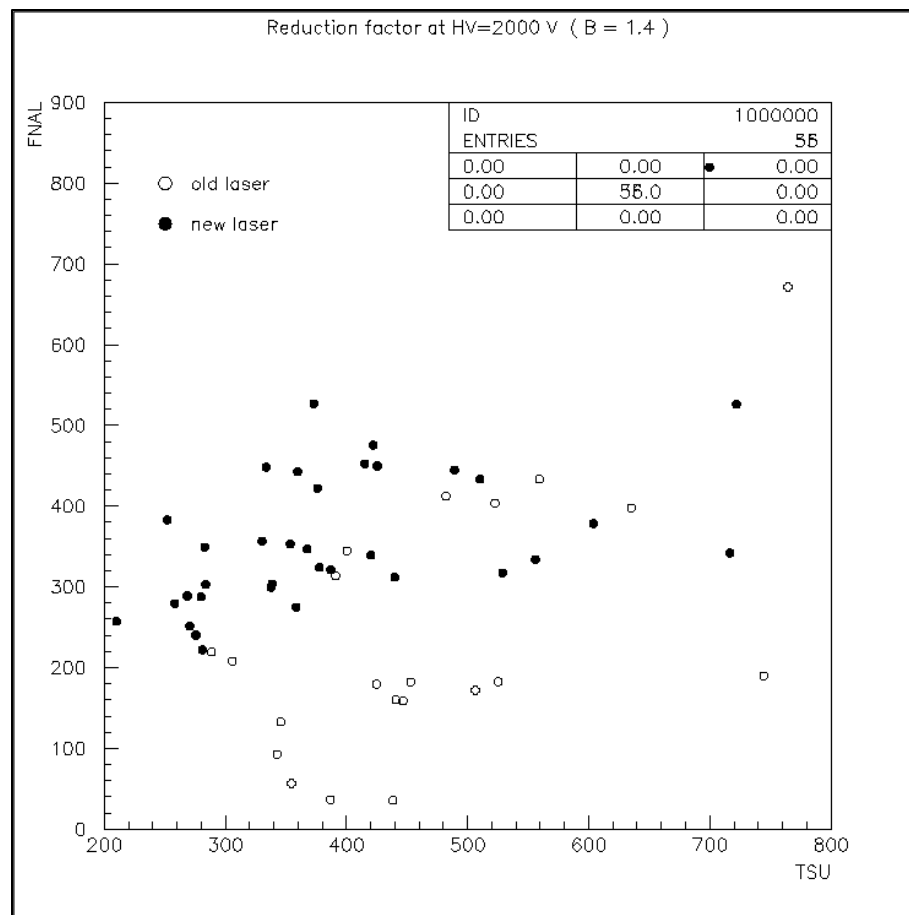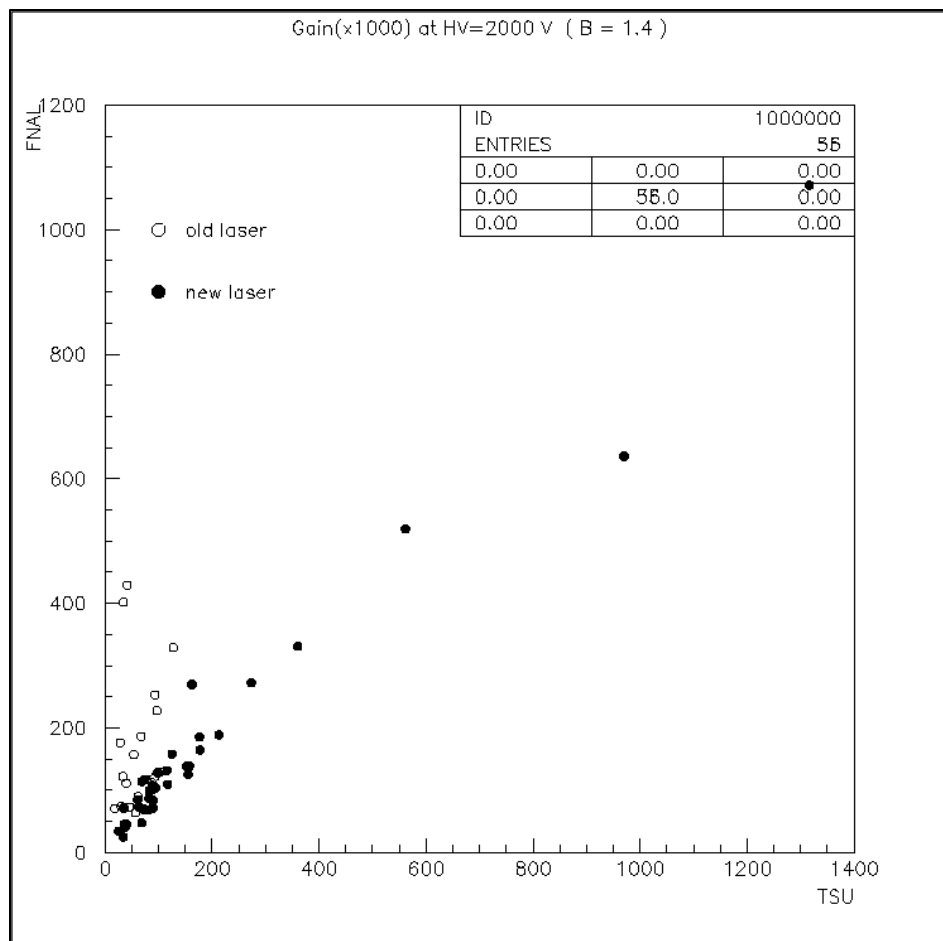 - Timing measurements: Time-Walk correction.

  - Conclusions.

PMT inventory and current calibration status.

- The figures are:

  - Total number of PMT received 91+63(new box)+6 (lab 6).

  - Total number of PMT tested   88

- The real pmt assembly (preamp+connector board+mechanical internal parts) is being used, so we are ready to insert the real preamps.

Gain measurement @ B=1.4

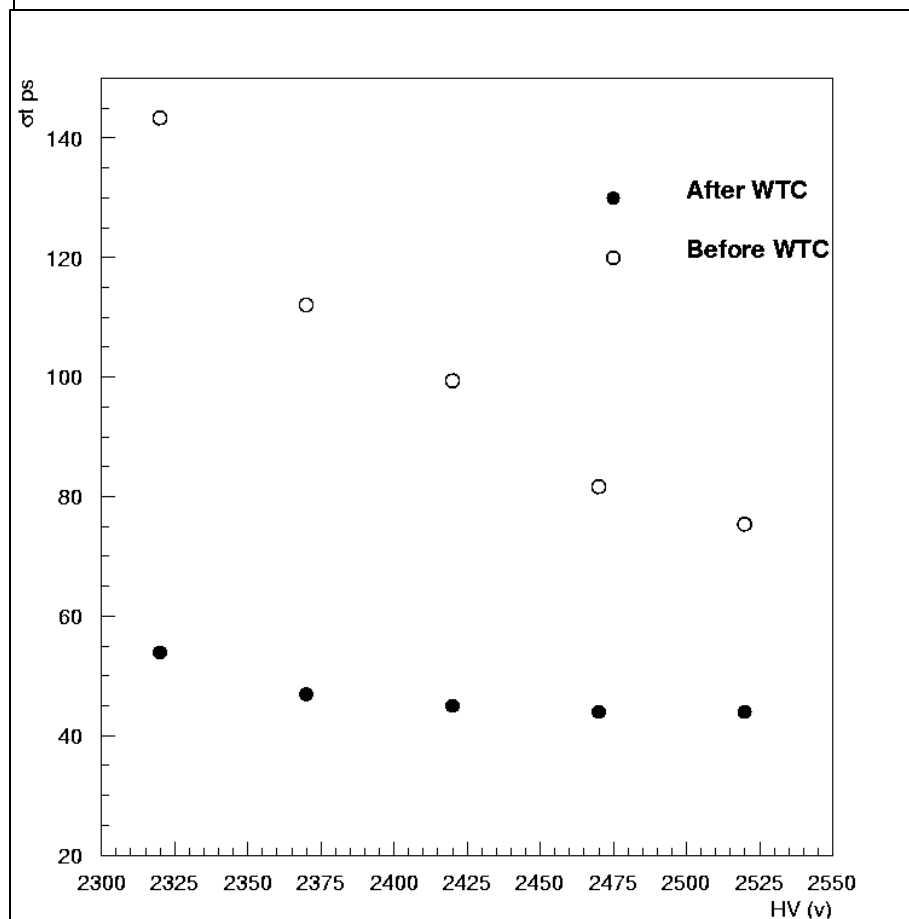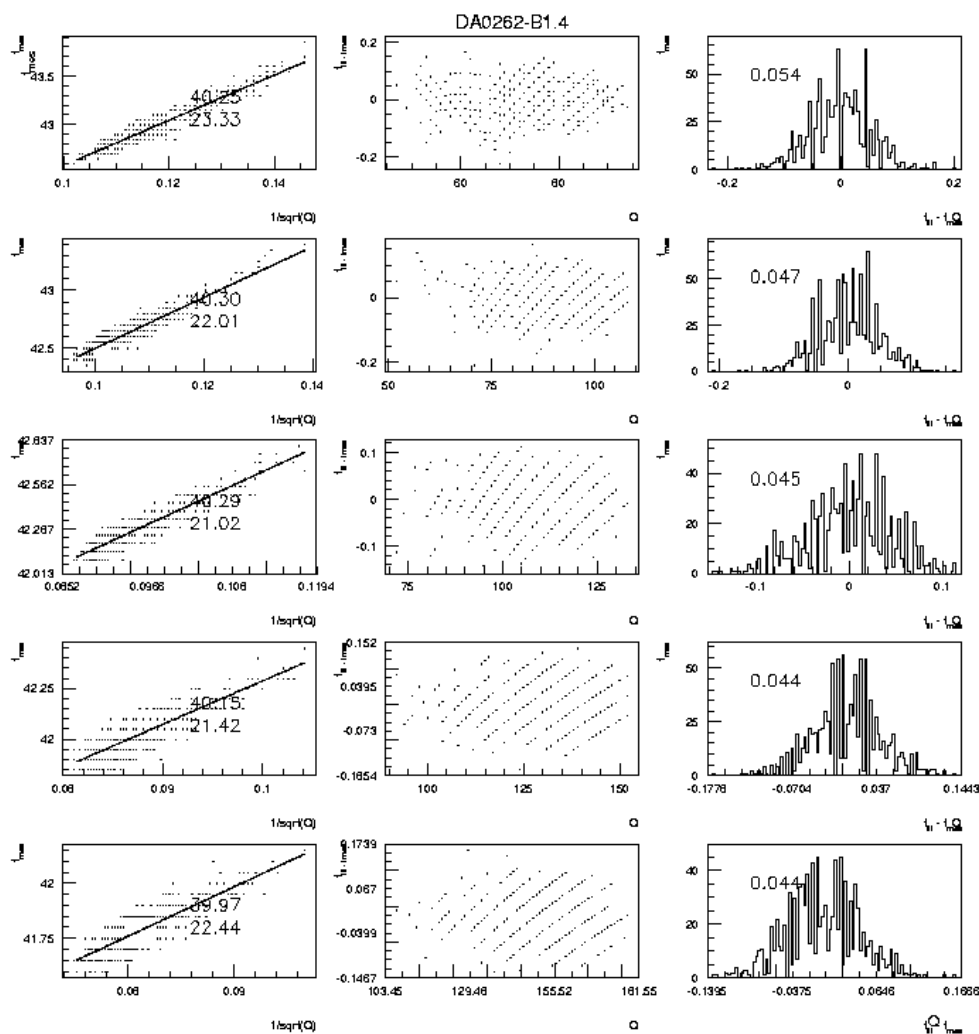- Light output normalization between B=0 and B=1.4 measurements is needed
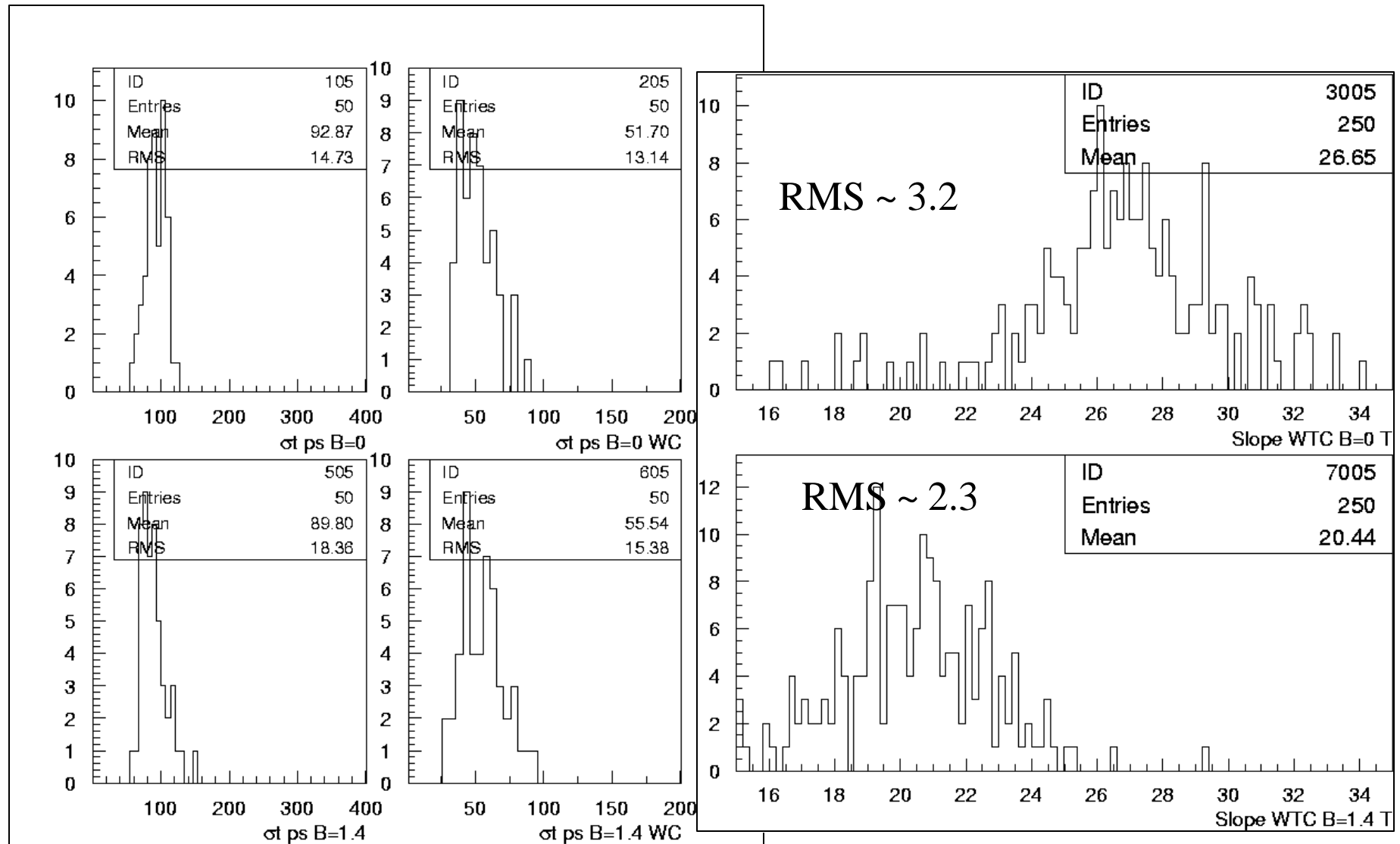
Timing measurements: time-walk correction
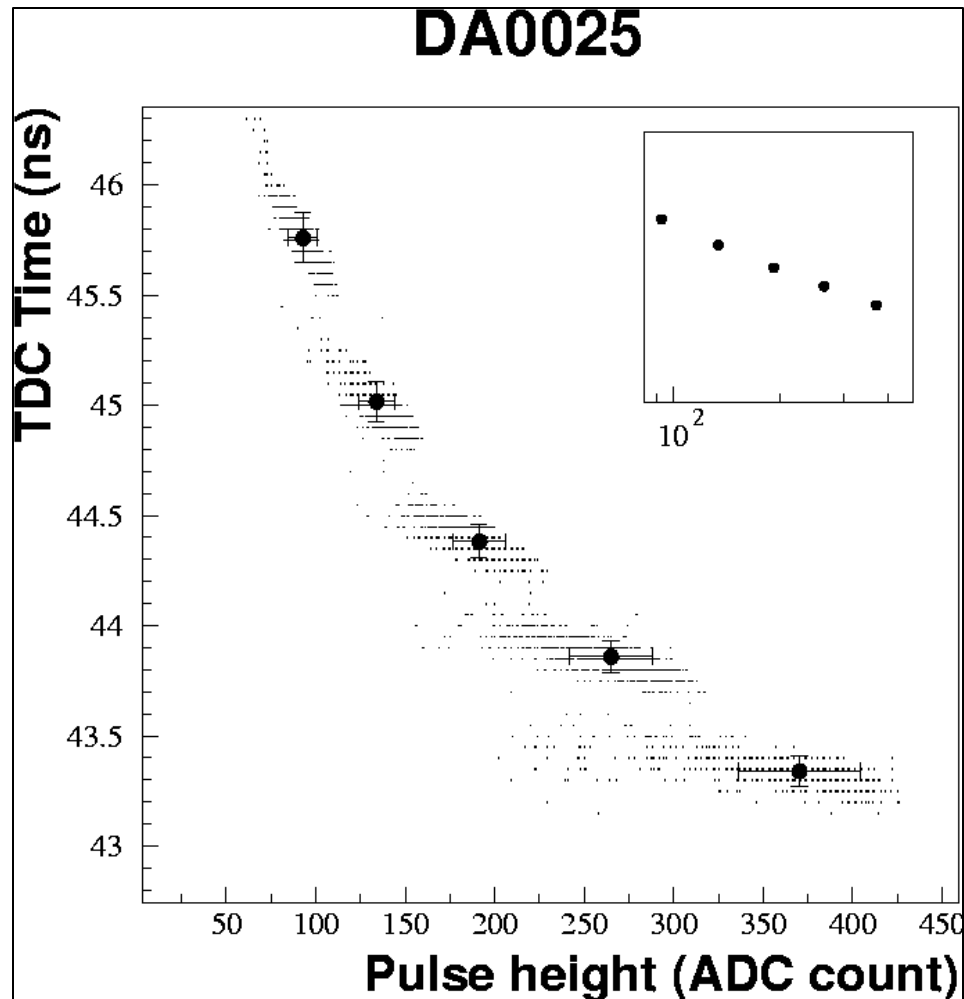
- For each HV point we have fit the time vs. charge curve.

- We have supposed the dependence:

$$\text{Time} \propto 1/\sqrt{\text{ADC}}$$
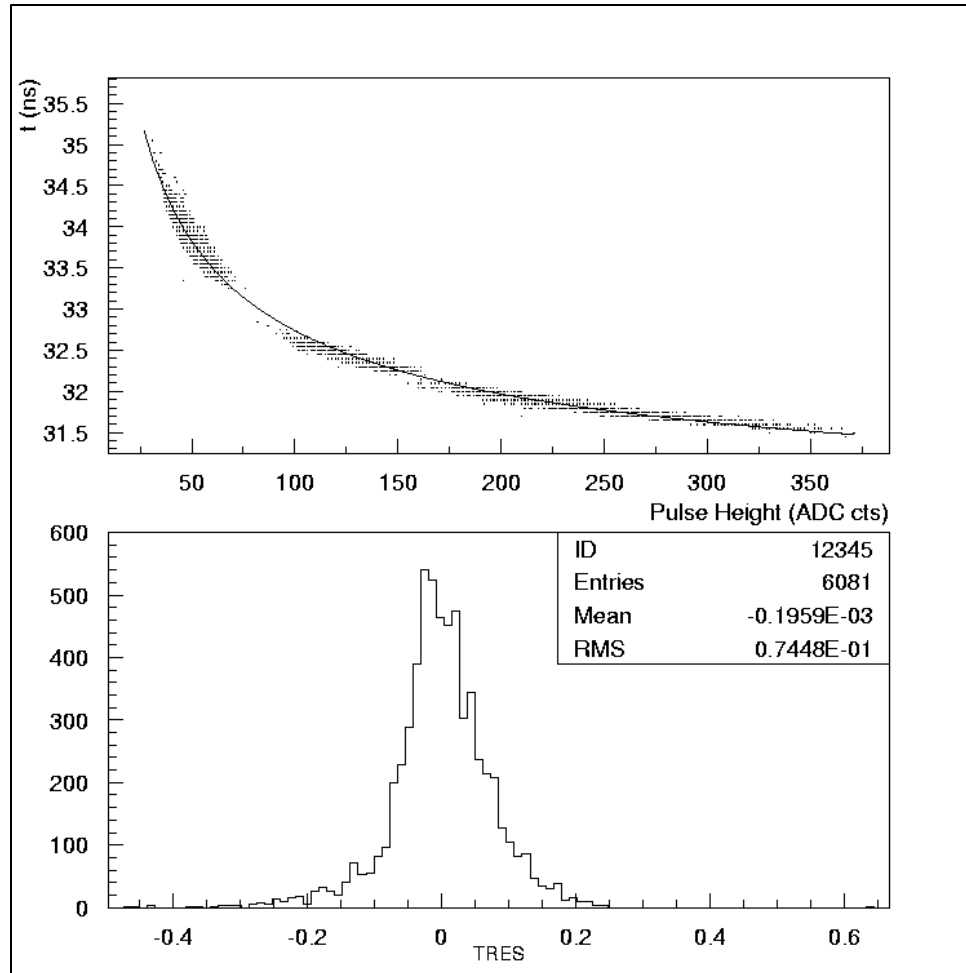
Timing measurement: walk correction DA0262

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- For a a given HV~ 2000 Volts. the light output is modified using the neutral density filters.

Conclusions and next steps

- New assembly ready for the preamp insertion.

- The detailed gain analysis has concluded.

- The timing analysis is still on progress.

- The timing measurement is going to be completed using real scintillator bar (time resolution vs. distance).